# BOMBAY NATURAL HISTORY SOCIETY'S MAMMAL SURVEY OF INDIA, BURMA AND CEYLON.

#### REPORT No. 36, NAGA HILLS.

## By J. P. MILLS, I.C.S.

The specimens included in this collection were all obtained in the Mokokchung Sub-division of the Naga Hills, a mass of mountains lying to the South-east of the Brahmaputra River and forming the watershed between Assam and Burma. The position of the area where the collection was made is about 26°15 N., 95°25 S. E. The country in question is inhabited by Nagas, who live in fixed villages, but practise the shifting method of cultivation known as "jhuming." For cultivation of this type the jungle is cut and burnt, and the land sown for two years. It is then abandoned for ten or fifteen years, and the process repeated. Jungle grows quickly in such a damp climate—the rainfall is about 120 inches a year—and abandoned fields are soon covered with a very dense secondary growth of grass, bushes and small trees, interspersed with a few large trees which were only lopped at the time of cultivation and have recovered.

The population is as dense as the land can support by this method of cultivation, and primeval jungle only exists on slopes which are too steep or rocky for cultivation and in the valleys where it is impossible to protect the crops against elephants. This primeval jungle consists of huge trees, many of them berry-bearing. The ground under them is mostly in heavy shade and is usually lightly covered with straggly bushes.

Most of the specimens were taken at a height of between four and five thousand feet in a piece of primeval jungle near Mokokchung, the Sub-divisional Headquarters. The method employed was to set a line of traps near the edge of the jungle to catch mammals going to and fro at night between the primeval jungle and the heavy secondary growth of the temporarily abandoned fields which lay immediately below it.

The collection contains 123 specimens distributed among 39 genera and 49 species, of which a detailed list is given below.

> (1) HYLOBATES HOOLOCK, Harl. *The Hoolock.* (Synonymy in No. 14.)

# Mokokchung, 5,000', 31, 22.

Very plentiful and tame where not persecuted. Apparently never descends to the ground. Individuals caught in a fire will remain and be burnt sooner than come down and cross open fields to the next patch of jungle. (2) MACACA ASSAMENSIS, McCl.

The Himalayan Monkey.

(Synonymy in No. 16.)

Mokokchung, 5,000', 3 3, 2 3. Common in the jungle but rarely approaches villages.

(3) MACACA MULATTA, Zimm.

The Indian Macaque.

(Synonymy in No. 7.)

Chuntia, 4,000', 31, 91.

Swarms round villages of the Ao Nagas who do not eat them. A bold and clever thief.

(4) MACACA ARCTOIDES, Geoff.

The Stump-tailed Macaque.

1833. Macacus arctoides, Geoffroy, Mag. Zool. Cl. 1, pl. II. Merangkong, ♀ 1; Dikhu River, ♂ 1, ♀ 1.

Found in troops which may number forty individuals or more.

Generally keeps to the ground. Troops are often surrounded by Nagas and wiped out. Are very partial to fresh-water crabs, for which they search the beds of mountain streams.

(5) PITHECUS PILEATUS PILEATUS, Blyth.

The Capped Langur.

(Synonymy in No. 20.)

Mokokchung, 5,000',  $_{\mathcal{J}}$  1,  $_{\mathcal{Q}}$  1; Cholimsen,  $_{\mathcal{J}}$  1. Chiefly found at fairly high elevations.

(6) PITHECUS PILEATUS SATURATUS, Hint. subsp. n.

The Capped Langur.

 1921. Pithecus pileatus saturatus, Hinton, J.B.N.H.S., Vol. XXIX, p. 81 Lakhuti, ♂ 1.

The commonest of the two subspecies and does not herd or interbreed with the other subspecies. Found at low elevations.

(7) NYCTICEBUS COUCANG, Bodd.

The Slow Loris.

(Synonymy in No. 17.)

Naga Hills, ? 1.

Very rare. Lhota Nagas hold the animal in horror and believe that the appearance of one forebodes a drought. MAMMAL SURVEY OF INDIA.

(8) RHINOLOPHUS FERRUM-EQUINUM TRAGATUS, Hodgs. Hodgson's Horse-shoe Bat.

1835. Rhinolophus tragatus, Hodgson, J.A.S.B., IV, p. 699.

1888. Rhinolophus ferrum-equinum, Blanford, No. 156. Aichisagami, 3 2, 9 1.

Common in places. Aichisagami bungalow swarms with them.

(9) NYCTALUS LABIATUS, Hodgs.

The Indian Noctule Bat.

(Synonymy in No. 25.)

Mokokchung, 4,500', J1.

(10) PIPISTRELLUS MIMUS, Wrought. The Southern Dwarf Pipistrel. (Synonymy in No. 1.)

Mokokchung, 4,500', 3.

(11) TUPAIA BALANGERI ASSAMENSIS, Wrought.

The Assam Tree Shrew

1921. Tupaia belangeri assamensis, Wroughton, J.B.N.H.S. Vol. XXVII, No. 3, p. 599.

Mokokchung, 5,000′, ♂4, ♀4.

(12) PARASCAPTOR LEUCURUS, Blyth.

The White-tailed Mole.

1850. Parascaptor leucura, Blyth. J.A.S.B. XIX., p. 215.

1888. Talpa leucura, Blanford Mammalia No. 113.

Mokokchung, 4,500', 91.

Some Nagas believe it to be very unlucky to see, leave alone touch one. They regard it as the dead man's deer, which only comes through to the surface of the earth when hard pressed by hounds in the underworld.

(13) CHIMMAROGALE HIMALAYICA, Gray.

The Himalayan Water Shrew.

(Synonymy in No. 23.)

Pangti, 2,000', 91.

Apparently an albino.

(14) FELIS BENGALENSIS, Ker.

The Leopard Cat.

(Synonymy in No. 11.)

Mokokchung, 4,500', J1.

Very plentiful and destructive to poultry.

(15) VIVERRA ZIBETHA, L.
The Large Indian Civet.
(Synonymy in No. 14).

Okotso,  $_{\mathcal{S}} 2$ .

(16) VIVERRICULA MALACCENSIS, Gmel.

The Small Indian Civet.

(Synonymy in No. 3.)

Sangrachu, 3,500', J2.

Plentiful, but exceedingly difficult to trap.

(17) PAGUMA GRAYI, Benn.

The Himalayan Palm Civet.

(Synonymy in No. 15.)

Mokokchung, 4,500′, 31.

(18) ARCTOGALIDIA MILLSI, Wrought. sp. n.

The Naga Palm Civet.

1921. Arctogalidia millsi, Wroughton, J.B.N.H.S., Vol. XXVII No. 3, p. 600.

Mokokchung, 5,000',  $_{\sigma}$  l.

Very rare indeed. This specimen was shot at dusk while climbing about in a tree in virgin forest. The Nagas had no name for the animal.

"So far as I have been able to find out, there is no reliable record of an *Arctogalidia* nearer than Sylhet, more than 150 miles away, and this one seems to be very much bigger, if not half as large again, so that Mr. Mills' discovery is of great interest."—R. C. W.

(19) HERPESTES NEPALENSIS, Gray.

The Small Assam Mongoose.

1837. Herpestes nepalensis, Gray, Ch. Mag. N. H. I, p. 578. Mokokchung, 4,000', Jl.

Not common.

(20) ARCTONYX COLLARIS, F. Cuv.

The Hog Badger. (Synonymy in No. 25.)

Longpa, 31.

Very uncommon.

#### MAMMAL SURVEY OF INDIA.

 (21) AMBLONYX CINEREA, Illing. The Claw-less Otter. (Synonymy in No. 11.)

Dikhu River, 31.

Common. Eaten by some Nagas, who believe that by doing so they will prevent fish bones sticking in their throats.

> (22) URSUS TORQUATUS, Wagn. The Himalayan Black Bear. (Synonymy in No. 25.)

Okotso, 3,500',  $\sigma 1$ ,  $\varphi 1$ ; Are, 3,000',  $\sigma 1$ ,  $\varphi 1$ . Skulls only. Nagas divide the bears of this region into three distinct species There is not yet sufficient material to determine this point definitely.

(23) MUSTELA KATHIAH, Hodgs.

The Yellow-bellied Weasel.

(Synonymy in No. 15.)

Sangrachu, 3,500', Ç 1. Apparently not at all common.

> (24) CHARRONIA FLAVIGULA, Bodd. *The Northern Indian Marten*. (Synonymy in No. 15.)

Sangrachu, 3,500', J1; Mokokchung, 4,500', J1.

Plentiful. Usually found in twos or threes. Is reported to visit Ao Naga cemeteries and eat the corpses exposed on platforms.

(25) HELICTIS MILLSI, Thos.

The Naga Ferret Badger.

1921. Helictis millsi, O. Thomas, J.B.N.H.S., Vol. XXVIII, No. 2, p. 432.

Mokokchung, 5,000′, ♂ 3, ♀ 1.

Mr. Thomas has dealt with this species under "Results." All the specimens obtained were trapped in virgin forest. The Nagas regard the animal as rare and local.

(26) CUON DUKHUNENSIS, Sykes.

The Indian Wild Dog.

(Synonymy in No. 2.)

Akuk, 3,500', J 1; Mokokchung, 5,000', J 1.

The Nagas recognise two species of wild dog—the ordinary red one which hunts in packs, and another longer-legged animal which is larger, fiercer and runs in pairs or threes at most.

## 226 JOURNAL, BOMBAY NATURAL HIST. SOCIETY, Vol. XXIX.

(27) PETAURISTA YUNNANENSIS, And. Anderson's Flying-Squirrel.

1875. Pteromys yunnanensis, Anderson, A.M.N.H. (4), XVI, p. 282 1888. , , , Blanford Mamm. No. 230.

Mokokchung, 5,000',  $\sigma$  1,  $\varphi$  1; Longpa,  $\varphi$  1.

(28) Hylopetes Alboniger, Hodgs.

The Parti-coloured Flying-Squirrel.

(Synonymy in No. 20.)

Mokokchung, 5,000′, ♂ 1, ♀ 2.

29) RATUFA GIGANTEA, McCl.

The Assam Giant Squirrel.

(Synonymy in No. 14.)

Lakhuti, 1.500',  $\bigcirc$  1, Mokokchung, 5,000',  $_{\circ}$  2. Plentiful.

(30) CALLOSCIURUS ERYTHRÆUS NAGARUM, Thos. and Wrought, *The Naga Squirrel*. (Synonymy in No. 20.)

Mokokchung, 5,000',  $\mathcal{J}$  1,  $\mathcal{Q}$  1; Cholimsen, 4,000',  $\mathcal{J}$  1,  $\mathcal{Q}$  1. Sangrachu, 3,000',  $\mathcal{J}$  1; Wokha, 5,000',  $\mathcal{J}$  1. Manipur, Upper Assam,  $\mathcal{Q}$  1.

(31) TOMEUTES BLYTHI, Tytler.

Blyth's Squirrel.

854. Sciurus blythii, Tytler. Ann. N.H. XIV, p. 172. Sangrachu, 3,000',  $\sigma$  1,  $\varphi$  1; Mokokchung, 5,000',  $\varphi$  1

(32) DREMOMYS LOKRIAH, Hodgs.

The Orange—bellied Himalayan Squirrel. (Synonymy in No. 20.)

Wokha, 5,000', 3 1.

(33) DREMOMYS RUFIGENIS OPIMUS, Thos. The Northern Red-cheeked Squirrel.

(Synonymy in No. 20.)

Mokokchung, 5,000′, ♂ 2, ♀ 3.

(34) DREMOMYS PERNYI, M. Edws.

Perny's Dremomys.

(Synonymy in No. 25.)

Mokokchung, 5,000', J 1.

(35) DREMOMYS MACMILLANI, Thos. & Wrought. The Striped Dremomys. (Synonymy in No. 20.) Mokokchung, 5,000′, ♂ 1, ♀ 2. (36) TAMIOPS MACLELLANDI MANIPURENSIS, Bonh. The Manipur Striped Squirrel. (Synonymy in No. 20.) Mokokchung, 5,000', J 2. (37) LEGGADA, sp. Mokokchung, 5,000', J 1. (38) RATTUS RATTUS SIKKIMENSIS, Hint. The Darjiling Tree Rat. 1918. Rattus rattus sikkimensis, Hinton, J.B.N.H.S., XXVI, p. 61. Mokokchung, 5,000',  $\Im$  l,  $\Im$  l. (39) RATTUS RATTUS TISTAE, Hint. The Himalayan Tree Rat. 1918. Rattus rattus tista, Hinton. J. B. N. H. S., XXIV, p. 61, Mokokchung, 5,000', J 1. (40) RATTUS FULVESCENS, Gray. The Chesnut Rat. (Synonymy in No. 15.) Mokokchung, 5,000', J 4. (1 Flat skin). (41) RATTUS MENTOSUS, Thos. The Chin Rat. (Synonymy in No. 25.) Mokokchung, 5,000', 3 2. (42) RATTUS EDWARDSI, Thos. The Fokien Rat. 1882. Rattus edwardsi, Thomas. P.Z.S., p. 527. Mokokchung, 5,000′, ♂ 1, ♀ 2. (43) RATTUS BOWERSI, And. Anderson's Rat. (Synonymy in No. 16.)

Mokokchung, 5,000', J 1, Q 2.

"The first three of these six forms have their type locality in Nepal and Sikkim, while the last three, are, or rather hitherto have been found only much more to the east".—R.C.W.

29

(44) RATTUS MANIPULUS, Thos.

The Manipur Rat.

(Synonymy in No. 25).

Mokokchung, 5,000', J 1.

(45) ACANTHION BENGALENSIS, Blyth.

The Bengal Porcupine.

1851. Hystrix bengalensis, Blyth. J.A.S.B. XX, p. 170. Longpa, ♀ 1.

(46) ACANTHION MILLSI, Thos.

Mills' Porcupine.

1922. Acanthion millsi, Thomas, J.B.N.H.S., Vol. XXVIII, No. 2, p. 431.

Mokokchung, a skull only.

The only specimen I have seen is a dead one which I found in an old game pit in virgin jungle.

(47) RHIZOMYS PRUINOSUS, Blyth.

The Hoary Bamboo Rat.

1851. Rhizomys pruinosus, Blyth. J.A.S.B. XX., p. 519.

1891. ", ", Blanford Mamm No. 313.

Mokokchung, 5,000', J 1, 9 1.

Between Mongsemdi and Chantongia, ♀ 1.

(48) CANNOMYS BADIUS, Hodgs.

The Bay Bamboo Rat.

(Synonymy in No. 20.)

Mokokchung, 5,000′ ♂ 1, ♀ 2. (2 juv.)

(49) CAPRICORNIS SUMATRENSIS RUBIDUS, Blyth.

The Aracan Serow.

1863. Capricornis rubida, Blyth. Cat. Mamm. Mus. A.S.B., p 174.

1891. Nemorhædus sumatrensis, Blanford Mamm. No. 353 partim.

Longpa,  $\sigma$  1. Usually found on suitable ground, *i.e.*, jungle-clad cliffs. Always to be found near certain warm mineral springs which it frequents. Occasionally found as low as 1,000'. Feeds only at night, retiring for the day to sleeping ledges on cliffs, from which it can see without being seen. An animal will use the same ledge till it thinks it has been discovered, when it will leave it at once. It always keeps to the same paths, a habit which makes it easy to trap.

### MAMMAL SURVEY OF INDIA.

# (50) MUNTLACUS VAGINALIS, Bodd. The Bengal Rib-faced Deer.

(For synonymy, see Nos. 2 and 20.)

Mokokchung, 5,000′, ♂ 1; Mongsemdi, ♀ 1.

Where it is not persecuted it is far commoner near villages than in more remote jungle. Likes heavy cover and is consequently rarish in virgin jungle, where the undergrowth is sparse. When hunted it will run in circles, using the same path time after time.

# (51) MANIS PENTADACTYLA, L.

The Eastern Pangolin.

**1766.** Manis pentadactyla, Linnæus. Syst. Nat., p. 52. Khensa, Q 1.

Not very common. Can burrow with amazing speed. Chang Nagas will only eat one if they can kill it before it has curled up sufficiently for its tongue to reach its genital organs. Otherwise the meat will be 'bitter.'